

**STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY**

**General Order of Approval No. 10AQ-GO-01
Portable and Stationary Asphalt Batch Plants**

Final Draft Issued November 3, 2010

This General Order is applicable to any source applying for coverage in Adams, Asotin, Chelan, Columbia, Douglas, Ferry, Franklin, Garfield, Grant, Kittitas, Klickitat, Lincoln, Okanogan, Pend Oreille, San Juan, Stevens, Walla Walla, and Whitman counties or is regulated by the Washington State Department of Ecology (Ecology).

Pursuant to the State of Washington Clean Air Act Chapter 70.94 Revised Code of Washington (RCW), Ecology general regulations for air pollution sources, Chapter 173-400 Washington Administrative Code (WAC), specifically WAC 173-400-110 WAC (New Source Review) and Chapter 173-400-560 WAC (General Order of Approval), Ecology now finds the following:

FINDINGS

1. Any stationary or portable asphalt drum mix plant proposing to locate in one of the counties listed above or proposing to locate at a source that is regulated by Ecology may request coverage under this General Order.
2. The applicant must apply for coverage under this General Order. Please contact the appropriate Ecology office with jurisdiction over your source:

Air Quality Program
Central Regional Office
15 West Yakima Avenue, Suite 200
Yakima, WA 98902-3401
Phone: (509) 575-2490

Air Quality Program
Eastern Regional Office
4601 N. Monroe Street
Spokane, WA 99205-1295
Phone: (509) 329-3400

Industrial Section
P.O. Box 47600
Olympia, WA 98504-7600
Phone: (360) 407-6900

Nuclear Waste Program
Hanford Unit
3100 Port of Benton Blvd.
Richland, WA 99354
Phone: (360) 372-7950

Or on the internet at http://www.ecy.wa.gov/programs/air/AOP_Permits/Boiler/GeneralOrders.htm.

3. The proposed source, if constructed and operated as herein required, will employ Best Available Control Technology (BACT) to control emission of criteria pollutants, and Best Available Control Technology for Toxics (tBACT) to control emission of toxic air pollutants.
4. The proposed source if constructed and operated as herein required, will comply with all New Source Performance Standards (NSPS), specifically 40 CFR 60.91 (Subpart I).

5. This General Order applies to portable and stationary asphalt plants. A portable asphalt plant is defined as a plant that remains at the same location (pit, quarry, or operating site) for less than or equal to 365 days following start of operation. A stationary asphalt plant is defined as an asphalt plant that operates at the same location for longer than 365 days following start of operation. Non-road engines may be used to generate power for portable plants. Power generators cannot remain at any site for longer than 12 consecutive months without approval under WAC 173-400-110. If a portable plant intends to remain at a location for longer than one year (365 days), the plant must meet the stationary source conditions under Section 5 of this General Order or obtain a separate Notice of Construction approval order under the provisions of WAC 173-400-110 before operating as a stationary source.
6. The provisions of WAC 173-400-035, Non-road engines, can be met by providing information on the power generators as required in the application and notification form required under this approval. This only applies to power generators with a total maximum aggregate rated capacity of between 500 and 2000 horsepower. Power generators with a total maximum aggregate rated capacity of over 2000 horsepower shall obtain approval under WAC 173-400-035 prior to installing equipment at any location.

THEREFORE, IT IS ORDERED that an asphalt plant that meets the specification and limitations contained in this General Order, and more specifically detailed in the Technical Support Document prepared on September 29, 2010, is approved for construction, installation and operation, provided the following conditions are met:

APPROVAL CONDITIONS

1. OPERATIONAL LIMITATIONS

- 1.1. Asphalt production shall not exceed 500 tons per hour and 6,000 tons in any one (1) calendar day. Total asphalt production shall not exceed 300,000 tons in any consecutive rolling 12-month period.
- 1.2. The asphalt drum burner must not be greater than 150 MMBtu/hr heat input.
- 1.3. A fabric filter (baghouse) shall be used to control particulate matter emissions from the drum-mix dryer.
- 1.4. At no time may a plant exceed the maximum production rating of the installed equipment.
- 1.5. An interlock or other fail-safe device shall prevent the drum-mix dryer from operating if the baghouse is not operating.
- 1.6. Each asphalt cement heater must have a minimum of one self-regulating automatic overheating disconnect. To prevent the potential overheating of the asphalt oil storage tank where the first disconnect fails, Ecology recommends that two self-regulating automatic asphalt cement heater disconnects be installed.

- 1.7. The minimum distance from the property boundary to any emission unit, including the drum-mix dryer, storage silo, baghouse exhaust, asphalt cement oil storage tanks, and load-out operations, shall be 150 feet.
- 1.8. All fuel used to fire the drum-mix dryer burner and/or power generators shall be natural gas, liquefied petroleum gas (LPG), or No.2 diesel fuel oil with a sulfur content of 0.0015 percent or less, by weight. Oil blends that meet ASTM D975 specifications for No.2 diesel fuel oil, or ASTM D6751 specifications for biodiesel blends may be used only if no emission limit contained in this General Order will be violated.
- 1.9. The exhaust stack discharge point for the baghouse exhaust shall be at least 23 feet above ground level and shall be designed to increase plume dispersion of exhaust gases by limiting bends, vent obstructions, non-vertical discharges, and building interference.
- 1.10. The percentage of Recycled Asphalt Pavement (RAP) used in the asphalt cement mix under this approval is limited to the percentage of RAP used during the most recent source test demonstrating compliance under this General Order of Approval.
- 1.11. The Fugitive Dust Control Plan (FDCP) attached at the end of this Order shall be implemented whenever the asphalt plant is in operation.

2. EMISSION LIMITATIONS

Table 2a. Baghouse Exhaust Stack Emission Limits				
No.	Pollutant	Limits		Test Method
2.1	PM, PM _{2.5} , and PM ₁₀	0.020 gr/dscf @ 15% Oxygen	0.012 lb/ton HMA**	Method 5/202*
2.2	NO _x	< 80 tons/year	-	Method 7*
2.3	CO	< 80 tons/year	-	Method 10*
2.4	SO ₂	< 80 tons per year of SO ₂	-	Method 6 or calc*
2.5	VOC	< 80 tons/year of any VOC	-	Method 25A*
2.6	TAPs	< Acceptable Source Impact Level	-	No testing required
2.7	Hazardous Air Pollutants (HAP)	< 10 tons/year of any HAP	-	No testing required
2.8	HAP	< 25 tons/year of any combination of HAPs	-	No testing required
2.9	Visible Emissions (VE)	10% opacity		Method 9*
Table 2b. Fugitive Emissions Limitations				
2.10	VE	No VE beyond property boundary		Method 22

* Alternate or equivalent test methods may be requested in writing by the permittee and approved, in writing, by Ecology.

** Is Hot Mix Asphalt

3. PROCESS MONITORING REQUIREMENTS

3.1. Monitoring instrumentation for the asphalt plant, including baghouse differential pressure, baghouse inlet temperature, and asphalt mixer temperature gauges, shall be operated at all times the asphalt plant is in operation. Operating specifications, quality assurance procedures, and maintenance procedures for the monitoring instrumentation shall be contained in the Operations and Maintenance (O&M) manual.

3.1.1. Baghouse differential pressure gauge.

3.1.2. Baghouse inlet temperature gauge.

3.1.3. Mix temperature gauge.

4. TESTING REQUIREMENTS

4.1. Source testing shall be conducted on the asphalt plant baghouse exhaust stack vent at least every five (5) years for the pollutants and testing methods listed in Table 2a. or as approved by Ecology.

4.2. A test plan shall be submitted to Ecology at least 30 days prior to any scheduled stack testing. The test plan and test results are subject to Ecology's review and approval.

4.3. All testing shall be conducted when asphalt production is at least 90 percent of the maximum production rate at which the plant will be operated or as approved by Ecology.

4.4. A report of the test results shall be submitted to Ecology within forty-five (45) days of the source test.

4.5. All testing will be reflective of normal source operation. Baseline parameters, such as asphalt mix temperature, percentage of RAP, baghouse inlet and outlet gas temperatures, plant asphalt production rate, differential pressure across the baghouse, and any other information as required by Ecology will be recorded during testing and reported in the test results.

4.6. Filterable and condensable particulate matter emissions shall be reported both separately and cumulatively in the test report.

5. ADDITIONAL RESTRICTIONS FOR OPERATION AS A STATIONARY SOURCE

The asphalt plant approved by this General Order may be operated as a stationary source subject to the following restrictions:

- 5.1. SEPA review must be conducted for the stationary site where the asphalt plant will be operated and environmental impacts of asphalt processing at the site must be analyzed as part of that review. If satisfactory SEPA review has not been conducted for the site by another lead agency and no other agency has a permit to issue, the source shall submit a SEPA environmental checklist to Ecology together with the Air Quality Notification Form for Asphalt Plants. Approval to operate the stationary asphalt plant is not valid until SEPA has been complied with for that site.
- 5.2. For Stationary Asphalt Plants, a scavenging system scavenger fan and ducting to collect Volatile Organic Compounds (VOC) and asphalt fumes from the asphalt storage silo and the hot mix conveyor shall be routed to the burner for destruction.
- 5.3. An interlock or other fail-safe device shall prevent the drum-mix dryer from operating if the scavenging fan is not operating.
- 5.4. All stationary asphalt plant equipment, except the asphalt drum dryer, shall use line power or shall have a Notice of Construction Approval Order for power generators before operating as a stationary source.

6. ADDITIONAL RESTRICTIONS FOR OPERATION AS A PORTABLE SOURCE

The asphalt plant approved by this Order may be operated as a portable source subject to the following restrictions:

- 6.1. SEPA review must be conducted for each site where the asphalt plant will be operated and environmental impacts of asphalt processing at the site must be analyzed as part of that review. If satisfactory SEPA review has not been conducted for the site by another lead agency and no other agency has a permit to issue, the source shall submit a SEPA environmental checklist to Ecology together with the notification required under Condition 6.2. Approval to operate the asphalt plant in any location is not valid until SEPA has been complied with for that site.
- 6.2. All portable operations must completely fill-out and submit to Ecology, the Air Quality Notification Form for Asphalt Plants, at least 10 days prior to beginning operations at each new location.
- 6.3. For all portable operations that plan to stay at the same location for over 365 days, the source shall completely fill-out and submit to Ecology, the Air Quality Notification Form for Asphalt Plants. This notification will be used to notify Ecology that the portable plant intends to operate as a stationary source. All permit conditions under Section 5 above and notification under this condition need to be completed before the end of the 365-day period from which operations started as a portable source.

- 6.4 The provisions of WAC 173-400-035, Non-road engines, can be met by providing information on the power generators as required in the application and notification form required under this approval. This only applies to power generators with a total maximum aggregate rated capacity of between 500 and 2000 horsepower. Power generators with a total maximum aggregate rated capacity of over 2000 horsepower shall obtain approval under WAC 173-400-035 prior to installing equipment at any location. Power generators and other non-road engines cannot remain at the same site for longer than 12 consecutive months without approval under WAC 173-400-110.

7. OPERATION AND MAINTENANCE (O&M) MANUAL

The operational parameters and practices shall be included in an O&M manual for the facility to be prepared by the permittee. The O&M manual shall be maintained and followed by the permittee, and shall be available for review by Ecology or the environmental Protection Agency (EPA) upon request. Emissions that result from a failure to follow the requirements contained in the O&M manual relative to compliance with the conditions of this permit may be considered credible evidence that emission violations have occurred. The O&M manual shall at a minimum include:

- 7.1. Normal operating parameters for all air pollution control and processing equipment.
- 7.2. Instrumentation to monitor operating parameters for air pollution control and processing equipment.
- 7.3. A maintenance schedule for all air pollution control and processing equipment.
- 7.4. Monitoring and recordkeeping procedures and requirements.

8. RECORDKEEPING

Specific records shall be kept by the permittee and made available for inspection by Ecology upon request. The records shall be organized in a readily accessible manner and cover a minimum of the most recent 60-month period. The records to be kept shall include the following:

- 8.1. **Daily asphalt production records** summed and calculated as a 12-month rolling total showing actual hours of operation of the asphalt plant, amount of asphalt produced, and percentage of RAP in the feed material.
- 8.2. **Fuel consumption records** for the hot mix asphalt plant and the generators for each calendar year. Records must demonstrate that each supplier's fuel conforms to the specifications contained in this General Order.
- 8.3. **Asphalt mix temperature records** shall be recorded a minimum of once every hour.
- 8.4. **Hours of asphalt production** for each calendar year.
- 8.5. Maintain **maintenance records** for baghouse, burner, and scavenging system (if installed).

9. REPORTING

Ecology will request information annually in order to calculate annual air contaminant emissions. Information requested by Ecology shall be submitted within 30 days of receipt, or by the date specified on the forms.

10. GENERAL CONDITIONS

- 10.1. Access to the source by EPA, Ecology, or the local authority shall be allowed for the purposes of compliance assurance inspections. Failure to allow access is grounds for revocation of the General Order and enforcement under applicable regulations.
- 10.2. Legible copies of this General Order of Approval, the Coverage Order, and the O&M manual(s) shall be on-site and available to employees in direct operation of the facility and shall be available for review upon request by Ecology or the local authority.
- 10.3. Operation of the asphalt plant shall be conducted in compliance with all data and specifications submitted as part of the General Order application and in accordance with the O&M manual requirements.
- 10.4. This Approval Order shall not be construed to relieve the permittee of its obligations under any local, state, or federal laws or regulations.
- 10.5. Authorization may be modified, suspended, or revoked in whole or part for cause including violation of any terms or conditions of this authorization.
- 10.6. The conditions of this authorization are severable and, if any provision of this authorization, or application of any provisions of this authorization to any circumstance, is held invalid, the application of such provision to their circumstances, and the remainder of this authorization, shall not be affected thereby.
- 10.7. The permittee shall comply with all applicable provisions of 40 CFR Part 60, Subpart I, Standards of Performance for Hot Mix Asphalt Facilities.
- 10.8. Installation or modification of the burner, dryer drum, or baghouse may require approval by Ecology of separate Notice of Construction applications. Any proposed changes to the asphalt plant's equipment listed in this General Order, shall be reported to Ecology prior to any changes or modifications being made to the facility.
- 10.9. The source shall take reasonable precautions to prevent off-site odors. The permittee shall not cause or allow the generation of any odor, which may unreasonably interfere with any other property owner's use, and enjoyment of their property. The permittee shall use recognized good engineering practice and procedures to reduce all odors to a reasonable minimum. In the event odor becomes a problem, Ecology may order the source to take specific measures to control odor. These measures may include, but are not limited to, changing locations of the asphalt plant within the site, curtailment of operations, or installation of additional air pollution control devices.

FUGITIVE DUST CONTROL PLAN

Ecology's Air Quality Program has developed a fugitive dust control plan (FDCP) to supplement General Order No. 10AQ-GO-01. Washington air quality regulations require "best available control technology" (BACT) to control sources of air contaminant emissions. Best management practices (BMP) are utilized to control fugitive particulate matter emissions from both **dust** and **process fugitive** emission points. The FDCP provided below will identify fugitive emission points and provide a menu of BMP options to control fugitive particulate matter emissions for an asphalt plant and associated activities.

DUST EMISSION POINTS

1. Materials handling
 - 1.1. Aggregate removal from stockpiles.
 - 1.2. Front-end loader dumping into aggregate and recycle bins.
2. Wind erosion from exposed surfaces and stockpiles.
3. Access roads and site vehicle access areas.
4. Truck track-out and spillage on paved roads.

BEST MANAGEMENT PRACTICES MENU OF OPTIONS FOR DUST CONTROL

1. **REQUIRED: Water truck to be on site at all times the asphalt plant is in operation,** except for load transit time. The water applications rate and application frequency shall be sufficient to minimize dust from **access roads and on-site vehicle access areas** taking into consideration weather conditions and traffic volumes.
2. **RECOMMENDED:** Water application is expensive and time consuming, and is not the best utilization of our precious water resources. It may be cost effective during long-term operation at a site to **apply chemical dust suppressants or palliatives**. Always use products that are specifically designed for dust control. Washington State regulations do not allow the use of waste oil or other wastes for dust control from unpaved roads. Apply dust suppressants responsibly, and make sure you do not apply along shorelines or near waterways.
3. **REQUIRED:** Configure plant to minimize front-end loader and truck travel distances.
4. **REQUIRED:** Speed limitations for all site vehicles with procedures to maintain and enforce speed restrictions.
5. **AS NECESSARY:** Apply water from the water truck to all stockpiles and disturbed surface areas to reduce dust transport during periods of wind erosion.

6. AS NECESSARY: Apply water from the water truck to all paved roads to control dust from spillage and truck track-out.
7. AS NECESSARY: Mechanical sweeping of paved road surfaces in lieu of water application to control dust from spillage and truck track-out.

PROCESS FUGITIVE EMISSION POINTS

Process fugitive particulate emissions can be controlled by either emission control equipment or best management practices. Plant equipment configurations will vary, but most asphalt plants will need to control fugitive emissions from the equipment listed below. Each listed piece of equipment or discharge point has process fugitive emissions, and shall be controlled as follows:

1. Conveyors: Minimize or enclose each free fall transfer drop point to control particulate matter.
2. Baghouse catch: Open-air free fall of baghouse catch is not allowed.
 - 2.1. Enclosed collection and disposal containers for baghouse catch, and/or
 - 2.2. Convey baghouse catch fines back to mixer.
3. Drum mixer discharge: Sufficient negative pressure in the drum mixer to transport asphalt fume to the baghouse.
4. Hot mix storage silo receiving point: Asphalt fume scavenger system as required for stationary asphalt plants in the General Order.

The dust and fugitive process emission points and control options described above pertain to all asphalt plants and associated activities. Ecology's Air Quality Program requires that all visible particulate emissions be controlled to less than 10 percent opacity in General Order No. 10AQ-GO-01.

YOUR RIGHT TO APPEAL

You have a right to appeal this Approval Order to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of this Approval Order. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal you must do the following within 30 days of the date of receipt of this Approval Order:

- File your appeal and a copy of this Approval Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this Approval Order on Ecology in paper form by mail or in person. (See addresses below.) E-mail is not accepted.

You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

ADDRESS AND LOCATION INFORMATION

Street Addresses	Mailing Addresses
<p>Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503</p> <p>Pollution Control Hearings Board 4224 – 6th Avenue SE Rowe Six, Building 2 Lacey, WA 98503</p> <p><i>Note: The PCHB is moving their office. To serve appeals at the correct street address, please visit their web site at www.eho.gov for the exact move date.</i></p>	<p>Department of Ecology Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608</p> <p>Pollution Control Hearings Board PO Box 40903 Olympia, WA 98504-0903</p>

For additional information, visit the Environmental Hearings Office website at <http://www.eho.wa.gov>.

To find laws and agency rules, visit the Washington State Legislature website at <http://www1.leg.wa.gov/CodeReviser>.

DATED in Olympia, Washington, this XX day of November 2010.

PREPARED BY:

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